Attachment 1

EB-2020-0290 Interrogatories

Table 1 – Refusals

Updated Following April 23, 2021 Discussions

IR #	Questions	Response	Disposition
Staff-254 g)	g) Please provide OPG's 2019 benchmarking results based on the scope that was used in OPG's 2017-2021 Payment Amounts Proceeding (i.e. how many % above or below the peer group is OPG).	OPG declines to provide the requested information on the basis of relevance. As clearly indicated in the update to Ex. F3-1-1 at page 5, in restating the 2016 Study, Hackett modified the "peer group scope to mirror the scope of OPG's functions." Hackett did this to ensure the best comparison between OPG's costs and those of the peer group consistent with the Hackett taxonomy and methodology. Redoing the 2019 Study using the 2016 scope, as the question requests, would only produce a poorer comparison between OPG's costs and those of the peer group would not provide any information relevant to the issues to be decided in this application.	No change.
Staff-265 d)-e)	d) Please provide the total amount paid by ratepayers through asset service fees related to the head office building since OPG was first regulated by the OEB (both nuclear and hydroelectric). Please provide the total amounts broken down between depreciation, property tax, operating costs and tax-adjusted return. e) Please confirm that the majority of the cost of the head office building was recovered through asset service fees during the period that OPG was regulated by the OEB (i.e. the regulated businesses were allocated the majority of the cost of the building).	d) OPG is providing information on the asset service fees for the head office property charged to the nuclear facilities in respect of the historic period presented in this application. In that period, the only such asset service fees recovered were through the EB-2013-0321 payment amounts, which were in effect up to June 1, 2017. The following are the details of the asset service fees included in the approved nuclear revenue requirement in EB-2013-0321 (as per EB-2013-0321, Ex. F3-2-1, Charts 3 and 4). e) OPG declines to provide this information on the basis of relevance. OPG's head office property was sold in 2017 and does not impact approvals sought in this application. Further, the head office property is not a prescribed facility and has never been included in OPG's rate base. As the OEB stated in EB-2016-0152 (Decision on Issues List Prioritization, December 21, 2016, p. 2), "The OEB also notes that OPG's head office is not a regulated asset."	Withdrawn.

Staff-294 c)	c) Please provide OPG's performance relative to the market for the public sector and private sector separately in the same format as the tables provided at Exhibit F4 / Tab 3 / Schedule 1 / Attachment 2 / pp. 13-14 (both excluding and including the Hydro One share grants).	(c) OPG declines to provide the requested information on the basis that the requested information is not relevant and cannot be provided with reasonable effort. WTW completed their benchmarking analysis using a 50% weighting on public sector market data and 50% weighting on private sector, consistent with OPG's compensation philosophy and comparator group approach. The analysis was not completed separately by sector and WTW advises that it would require extensive work to summarize separate market data by sector in order to rerun the overall summary tables provided at Ex. F4-3-1, Attachment 2, pp. 13-14. WTW further advises that this separate view would not be aligned with OPG's comparator group and how compensation is benchmarked, managed and reviewed. The 50/50 public and private sector weighting is also consistent with compensation benchmarking filed in EB-2016-0152, Ex. F4-3-1, Attachment 2. Therefore, the requested information would only produce a poorer comparison between OPG's costs and those of the peer group, and would not provide any information relevant to the issues to be decided in this application.	No change. OPG will include this interrogatory question as part of the request made with respect to Staff-285 (e) and SEC-148 for a written explanation from Willis Towers Watson on timing and level of effort required. OPG will revise its interrogatory response accordingly.
Staff 329 b)	b) Please provide the detailed calculations supporting this amount and please provide the drivers for this amount.	b) OPG declines to produce the requested information on the basis of relevance. As discussed in Ex. D2-2-2, p. 16, lines 19-26, OPG proposes to defer the clearance of DRP amounts recorded in the CRVA (if any) to a future application upon the completion of the DRP. As such, the information requested is not relevant to any issue in this application.	Withdrawn.
Staff-343	Please provide the calculations supporting the 2027-2031 and 2032-2036 anticipated revenue requirements. Please discuss whether deferral account dispositions are considered in the rate smoothing analysis.	OPG confirms that the disposition of the Rate Smoothing Deferral Account is considered in the evaluation of rate smoothing alternatives as set out in Ex. I1-2-3, Chart 3. Each scenario assumes that the balance in the Rate Smoothing Deferral Account is drawn down to $0 by the end of 2036. OPG declines to respond to produce the requested calculations on the basis of relevance. Detailed calculations for the period beyond the 2022-2026 IR term are not relevant to the determination payment amounts in this application and are not necessary to assess OPG's rate smoothing proposals.	Withdrawn.

		Without waiving the foregoing objection, OPG recognizes that contextual information for the ten years beyond the deferral period may be useful in assessing the full impact of the deferral amounts during the IR term. Although the OEB is only required to determine revenue requirement and deferral amounts for the 2022-2026 period, OPG has provided contextual information for the ten years beyond the deferral period in five-year periods in Ex. I1-3-2. OPG has provided some further contextual information for the 2027-2036 period in Chart 1 below, consistent with what was provided in EB-2016-0152 Ex. N3-1-1, Schedule 1, Attachment 2, Table 19.	
AMPCO-7	a) Please provide a copy of the original Business Plan, prior to the amendment noted. b) Please provide the date OPG's Board of Directors approved the Amended 2020 Business Plan and provide the meeting minutes.	OPG declines to provide the requested material on the basis of relevance. OPG's Application is based on its Amended 2020-2026 Business Plan, which superseded the prior business plan in its entirety.	Withdrawn.
AMPCO-38	a) Please explain why OPG was unable to manage within its annual OEB Approved limits. b) Please explain why OPG believes it is acceptable to overspend approved budgets consistently by large margins.	a) – b) OPG declines to respond to the question as phrased on the basis that it is argument and not a proper interrogatory. The question misstates the OEB's approvals in EB-2016-0152 and attributes actions and beliefs to OPG that are incorrect. For a discussion a discussion in the context of the OEB's actual approvals in EB-2016-0152, see Ex. L-D2-01-AMPCO-40.	OPG understands that AMPCO revised its interrogatory to request that, for 2017-2020, OPG provide any variance greater than 10%, for its planned annual nuclear capital expenditures as set out in OPG's business plan compared to the actuals. OPG declines to provide the requested information on the same basis that OPG declined to provide a response to the interrogatory as initially worded.

AMPCO-75	a) Please provide a breakdown and description of the $100.9M variance. b) For each of the Early In-service, F&IP and SIO projects shown below, please provide a schedule that sets out the forecast capital and in-service capital additions compared to actuals for each of the years 2010 to 2020. c) Please provide the contractor for each project. d) Please provide the business case for each project. e) Please provide any Project Over Variance Approvals. f) Please provide the CPI and SPI performance metric results for the Facilities & Infrastructure Projects for the years 2015 to 2020. g) Please provide the CPI and SPI performance metric results for the Safety Improvement Opportunities projects for the years 2015 to 2020.	a) – g) OPG declines to produce the requested information on the basis of relevance. The listed projects have either already been included in OPG's previously approved rate base (e.g., Water & Sewer Project, Darlington Energy Complex and Electrical Power Distribution System) or are included in the CRVA amounts related to DRP that OPG is not seeking to clear or include in rate base in this application. As such, the information requested is not relevant to any issue in this application.	No change.
AMPCO-77 b-c	D2-2-9: b) Table 2 & Table 3: Please add the following columns to Table 2 and Table 3: Original In-service Date, In-service Date Variance (days), Original Project Cost, Project Cost Variance ($M), and Inservice amounts for the years 2010 to 2019. c) Please provide excel versions of Table 2 and Table 3 incorporating part b).	OPG declines to produce the requested information on the basis of relevance. The projects listed in Tables 2 and 3 have either already been included in OPG's Rate Base (e.g., Water & Sewer Project, Darlington Energy Complex and Electrical Power Distribution System) or are included in the CRVA amounts related to DRP that OPG is not seeking to clear in this application. As such, the information requested in not relevant to any issue in this application.	No change.

AMPCO-81 c)	c) Please provide all reviews/reports undertaken by a third party related to the D2O project.	c) OPG declines to answer on the basis that this is not an appropriate question. The question ignores the principle of proportionality, which underlies the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question seeks without limit all third party reviews and reports created over the more than 10- year span that covers the D2O Storage Project. This is likely to encompass hundreds of documents. Moreover, in the course of answering numerous more focused IRs from AMPCO and other parties, OPG is producing hundreds of additional documents (see for example, Ex. L-D2-02-AMPCO-137 which has 142 Attachments), many of which are reviews or reports. If after reviewing these documents, AMPCO believes specific additional relevant reports are required, it can request them at the technical conference.	OPG understands that AMPCO revised its request. AMPCO now asks that OPG provide a list of the third party, internal or external reports, other than P&M reports, as they pertain to project management, contractor management, and EPC contractor performance. OPG will review this request and provide a revised response to the interrogatory as applicable.
AMPCO-89 c)	c) Please provide a list of Project Managers (PM) for the D2O Storage Project over the course of the project. Please provide the years of experience of each PM and a list of the other projects they were managing simultaneously.	c) OPG declines to provide the requested information on the basis of relevance. The names and experience of project managers on the D2O Storage Project would not provide any useful information for determining the prudence of OPG's expenditures on this project.	No change.
AMPCO-97 a) and b) (partial)	In April 2011, OPG convened a value-engineering workshop. A major focus of this workshop was to re-evaluate the potential sites for the project. After reviewing all potential sites identified, participants agreed that the site adjacent to the HWMB was superior from a cost and operational perspective, despite the constructability, site preparation and environmental issues identified. a) Please provide the Value Engineering Workshop Notice of meeting including: • Attendees with job title, employer name, and years of experience in current position and with employer	a) See: • Attachment 1, for the Value Engineering Welcome Memo providing notice of the meeting. • Attachment 2, for the Value Engineering report. There were no subsequent revisions. OPG declines to provide the list of meeting attendees on the basis of relevance and because it contains personal information. b) One other Value Engineering Meeting was held on June 28, 2011. See Attachment 3 for the presentation from that meeting.	Withdrawn.

	• Meeting minutes • Value Engineering report and all subsequent revisions. b) Please provide the same information for all other project Value Engineering Workshops or Meetings that were held, or planned and subsequently cancelled.		
AMPCO-100	OPG indicates an RFP was distributed to six potential proponents in May 2011. The RFP sought engineering services for all phases of the project (i.e., preliminary, detailed, construction support, commissioning, available for service ("AFS") and close out). OPG received four proposals in response to the RFP. OPG considered these proposals, but ultimately decided to cancel the RFP as it was not satisfied with any of the technical proposals. a) Please identify the six proponents and the four who provided proposals to OPG. b) Please provide the Scope of Work (SOW) document. c) Please provide the criteria used to evaluate the proposals. d) Please indicate why OPG was not satisfied with the technical proposals.	OPG declines to provide the requested materials on the basis of relevance. The engineering services RFP referred to in the question was cancelled 10 years ago. OPG ultimately determined to issue a work request for an Engineering, Procurement, and Construction ("EPC") contractor under the Extended Services Master Services Agreement ("ESMSA"). See responses to Ex. L-D2-02-AMPCO-102 through Ex. L-D2-02-AMPCO-106. The requested material neither forms part of the costs that OPG seeks to recover in this application nor provides any relevant information about the project.	No change.

AMPCO-101	Over the remainder of 2011, OPG refined the documentation for the project and created the technical specifications for a second engineering services RFP. The second engineering services RFP was issued in late 2011. The RFP featured a more developed scope of work ("SOW"), which provided greater detail on OPG's expectations for the project and also included certain mandatory criteria that proponents had to meet in order for their proposal to be considered. OPG received three proposals, but its initial review of compliance with the mandatory criteria determined that none of the proposals complied. As a result, OPG suspended further evaluation of the proposals and cancelled the RFP. e) Please identify the proponents that received the RFP and the three who provided proposals to OPG. f) Please provide the more detailed SOW document. g) Please provide the mandatory criteria that proponents had to meet. h) Please identify the mandatory criteria that could not be met and why the three proponents did not meet the criteria.	OPG declines to provide the requested materials on the basis of relevance. The engineering services RFP referred to in the question was cancelled almost ten years ago. OPG ultimately determined to issue a work request for an EPC contractor under the ESMSA (see responses to Ex. L-D2-02-AMPCO-102 through Ex. L-D2-02-AMPCO-106). The requested material neither forms part of the costs that OPG seeks to recover in this application nor provides any relevant information about the project.	No change.
AMPCO-106	a) Please provide the Design Requirements generated for the RFPs and provide all subsequent revisions. b) Please provide the Conceptual Design report generated for the RFPs and provide all subsequent revisions. c) Please provide the Engineering Change Control (ECC) Design Requirements from initial issue and all subsequent revisions.	c) See Attachment 2. OPG declines to provide other revisions of this document on the basis of relevance. The version supplied in Attachment 2 is from April 2011 and was in effect during the time the preliminary planning for the D2O Storage Project was taking place. This is a technical internal OPG document that has had numerous revision over more than 20 years and that has minimal, if any, relevance in deciding the issue before the OEB in this application. Other revisions are of no possible relevance.	Withdrawn.

AMPCO-110	Any change to a Darlington system, structure, or component, which affects or alters its design, function, or method of performing its function must follow OPG's modification process. Please provide all internal documents that relate to OPG's modification process.	OPG declines to answer this question. The question does not recognize proportionality considerations which underlie the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question contemplates the production of "all internal documents that relate to OPG's modification process" without limit. As OPG's evidence explains at Ex.D2-02-10, p.49, "Any change to a Darlington system, structure, or component, which affects or alters its design, function, or method of performing its function must follow OPG's modification process." As framed, this request captures hundreds of documents, none of which would be helpful to the OEB in determining the amount that should be placed in-service for the D2O Storage Project. OPG notes that the attachments to Ex. L-D2-02_AMPCO 106 ("Engineering Change Control") and to Ex. L-D2-02_AMPCO 108 ("Engineering Change Control Process") provide the core documentation for the modification process.	Withdrawn.
AMPCO-112	OPG indicates and significant modification must undergo OPG's constructability, operability maintainability and safety ("COMS") review process whereby a series of meetings are held with OPG personnel representing the relevant areas of Darlington to assess each design against the COMS criteria. b) Please provide a list the dates for all COMS meetings and provide the following materials for each meeting: • Meeting Notice • Attendees with job title, employer name, and years of experience • Meeting minutes • Disposition of COMS participant inputs.	OPG declines to answer on the basis that this is not an appropriate question. The question ignores the principle of proportionality, which underlies the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question seeks: • Meeting Notice • Attendees with job title, employer name, and years of experience • Meeting minutes • Disposition of COMS participant inputs It requests this information for every COMs meeting over the more than 10 year span that covers the D2O Storage	OPG understands that AMPCO revised its question to limit its request for COMs forms that document stakeholder input and disposition and associated meeting presentation materials for the following projects: • D2O drum cleaning facility • D2O storage tank transfer lines • D2O storage facility instrument air system • Seismic dike OPG will provide these documents in an update interrogatory response.

		Project without limit. Furthermore, documents like meeting notices and attendee lists and biographical information about the attendees would not provide any useful information for determining the prudence of OPG's expenditures on this project.	
AMPCO-127 b)	Please provide a summary of all Project Change Notices related to the project.	OPG declines to answer this question on the basis that this is not an appropriate question. The question does not recognize proportionality considerations which underlie the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question requests a summary of all Project Change Notices without limit. Responding to this request would require OPG to review and produce a summary of hundreds of documents requesting changes over the project's life. OPG notes that its evidence comprehensively discusses the significant changes the project and the interrogatory responses provide additional detail on these changes.	OPG understands that AMPCO revised its request for OPG to provide a list of the top 10 PCNs for cost and schedule increases. OPG notes that PCNs only directly address increased costs (they may indicate schedule impacts on a case by case basis). OPG will produce the top ten PCNs by dollar value.

AMPCO-153	g) Please provide the forecast inservice date. h) Please provide a chronological evolution of OPG's SMR proposal from the beginning. i) How many SMRs is OPG planning to construct? What is the proposed size of each SMR? j) Please provide all analysis related to the economic assessment of the proposal including benefits to ratepayers of SMRs and provide all assumptions. k) Please provide the $/MW forecast related to OPG's SMR proposal. l) Please provide all peer/expert reviews of OPG's SMR proposal. m) Please provide the Business Unit and organizational structure for the SMR proposal. Provide the years of experience of each project member. n) Please provide the Project Charter and Business Case for SMR. o) Please provide all other Business Planning documents related to the SMR schedule, scope of work, execution plan, and project controls.	g) – o) See Ex. L-F2-08-AMPCO-159.	Withdrawn.
AMPCO-154 b) - g)	b) Investments in the current Business Plan (2020 to 2026) do not currently include any capital expenditures for grid-scale SMR development. Does OPG expect next year's business plan to include a project team ramp up, capital expenditures related to SMR and in increase in OM&A costs over the 2022 to 2026 period? If yes, provide details. c) Does OPG have any current planning estimate of total capital and OM&A costs to engineer, design, build, and commission this SMR generating station. If so, please provide it. If not, why not? d) Has OPG conducted a jurisdictional review of SMR? If yes, please provide the results.	b) – g) See Ex. L-F2-8-AMPCO-159.	Withdrawn.

	e) What is the value for money proposition of OPG's SMR proposal? f) Does OPG consider its SMR proposal a First-of-A-Kind? g) Given the significant start-up costs, what is the breakeven point? How many SMRs need to be constructed for OPG's proposal to be cost effective?		
AMPCO-156 b) (partial) and d)	b) Please provide details of the due diligence process. Please identify the other major utilities OPG collaborated with. d) Has OPG entered into any agreements with the three grid-scale SMR developers? If yes, please provide details.	b) See Ex. F2-8-1, pp. 3-4 regarding OPG's technology developer selection process. The names of the major utilities that OPG collaborated with are not relevant for this proceeding (see Ex. F2-08-AMPCO-159). d) See Ex. F2-08-AMPCO-159.	Withdrawn.
AMPCO-159	a) Does OPG consider SMR technology to be mature and proven today? b) Is OPG aware of any utility scale, commercially operating SMR currently in service? If so, where is it located, when was it commissioned and what has its reliability been like since commissioning? c) Is it OPG's opinion that all costs (capital and OM&A) associated with engineering, designing, building, and commissioning an SMR Reactor should be covered by the ratepayer through its OEB Applications (this one and/or subsequent ones)? If so, why should the ratepayer be the sole source of funding for a currently unproven technology? If not, what costs does OPG think should be covered by the ratepayer? Where should additional funding come from? d) Does OPG feel that SMR technology advances Government policy objectives regarding the environment, carbon, climate change, etc? e) Has OPG investigated tax-based funding from Government for any portion of this SMR initiative? If so, what has been discussed (please provide documentation of the discussions). If not, why not?	a) – e) OPG declines to respond to these questions on the basis of relevance. These questions do not seek information that is relevant to any issue before the OEB in the current application. As explained in the following paragraph, OPG is not seeking recovery of any funding for SMR development in this application. As indicated in Ex. F2-8-1, OPG is in the initial planning and preparation phase for SMR development at Darlington, and neither an SMR proposal nor a business case has been developed. OPG intends to develop a proposal by late 2021 upon which an investment decision can be made. As there are no forecasted planning and preparation expenditures for the development of an SMR at Darlington included in OPG's current payment amounts, OPG will record such costs incurred in 2020 and 2021 in the NDVA in accordance with O. Reg. 53/05. OPG will seek recovery of eligible amounts in the NDVA through a future proceeding.	No change.

CCC-15	Please provide all materials provided to OPG's Board of Directors regarding approval of the 2020-2026 Business Plan and this Application.	OPG declines to produce the requested information on basis of relevance, as set out in Ex. L-A2-02-CME-002.	CCC revised its interrogatory request to the following: Please provide all materials provided to OPG's Board of Directors regarding approval of the 2020-2026 Business Plan. OPG agrees and will file a revised response to the interrogatory.
CCC-47 d)-e)	d) Please provide all correspondence between OPG and the Province of Ontario regarding the development of SMRs; e) Please provide all OPG internally prepared and externally prepared reports produced regarding the development of SMRs;	d) OPG declines to provide the requested information on the basis of relevance. This interrogatory seeks information on communications with the Province of Ontario regarding SMR development that is not relevant to deciding any issue in this application. OPG is not seeking approval of funding for SMR development in this application. e) OPG declines to provide the requested information on the basis of relevance. This interrogatory seeks reports produced regarding the development of SMRs. This question does not seek information that is relevant to any issue before the OEB in the current application. As explained Ex. L-F2-08-AMPCO-159, OPG is not seeking recovery of any funding for SMR development in this application.	Withdrawn.
CME-1	Please provide a summary of all audit reports, whether internal or external that have occurred since EB-2016-0152, including recommendations and any resulting actions taken by OPG to address those findings.	See Ex. L-A1-02-SEC-011	See response on SEC-11.

CME-2	(a) Please provide all presentations, PowerPoint slides, briefing notes or other written memoranda prepared by the business units developing their business plans and presented to OPG's senior management; (b) Please provide all written questions, comments or directions provided by OPG's senior management to OPG's business units relating to any presentations, PowerPoint slides, briefing notes, other written memoranda or draft business plans; (c) Please provide all presentations, PowerPoint slides, briefing notes, or other written memoranda prepared by OPG for OPG's Board of Directors relating to the business planning and budgeting process, including draft corporate level consolidated information, summarized financial plans, operational targets, and key initiatives for OPG's major business units; (d) Please provide all written questions, comments or directions provided by OPG's Board of Directors to OPG relating to the information set out in (c) above	OPG declines to produce the requested information on the basis of relevance. The materials presented to senior management or OPG's Board of Directors including "presentations, PowerPoint slides, briefing notes, other written memoranda or draft business plans" or "all written questions, comments or directions" are not relevant to the determination of any issue before the OEB in this application. OPG's application is based on its Amended 2020-2026 Business Plan as approved by its Board of Directors and not on any materials that may have been produced during its development. As the OEB said in EB-2010-0008 when rejecting a request for Board of Directors material: "The Board has decided not to order production of the materials sought in the CME and CCC motions. In the Board's view, these materials are not relevant to the determination of the issues before the Board in this proceeding. The Board will make its decision on the application and supporting materials filed by the applicant and the evidence of intervenors, all of which is subject to cross-examination." (EB-2010-0008, Tr. Vol. 1, p. 113)	Withdrawn. CME agreed that completion of the revised CCC-1 will be sufficient.

CME-6	To the extent that they are not already on the record, please provide all documents relied upon by OPG's experts in providing their evidence/report. These reports would include: (a) Innovative Customer Engagement Report (b) Ontario Power Generation Common Equity Ration Study by Concentric Energy Advisors (c) Pegasus Global Holdings, Inc. – Testimony of Dr. Patricia D. Galloway (d) Bates White Economic Consulting - Report (e) ScottMadden Evaluation of OPG Nuclear Benchmarking (f) OPG Nuclear Cost Performance Benchmarking – Methodology to Adjust for Refurbishment and Validation of Implementation (ScottMadden) (g) OPG Nuclear Cost Performance Benchmarking – A Study of Factors Impacting TGC/MWH Performance with Normalizing Adjustments to Facilitate Closer Comparison (Scott Madden) (h) 2019 Goodnight Nuclear Staffing Benchmarking Analysis	OPG declines to answer this question. The question does not recognize proportionality considerations which underlie the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question contemplates the production of every document provided to any of the eight listed independent experts. This encompasses hundreds of documents, many of which are highly technical. OPG notes that it has responded to interrogatories requesting specific documents relied on by individual experts (see e.g., Ex. L.D2-2-AMPCO-137 where OPG produced 142 documents considered by Bates White regarding the D2O Storage Project).	OPG understands that CME revised its request to seek a list of documents relied upon by OPG's experts in their evidence/reports. OPG agrees and will file a revised response to the interrogatory.
CME-8 a)	(a) To the extent that they are not already on the record, please provide all reports/findings/recommendations or similar documents from the Asset Management Oversight and Project Management Oversight Committees with respect to the specific projects at issue in this proceeding.	(a) OPG declines to answer on the basis that this is not an appropriate question as posed. The question ignores the principle of proportionality which underlies the interrogatory process, in that it is overly broad and all encompassing. The question seeks "all reports/findings/recommendations or similar documents" for an unlimited period without specification. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." Without waiving the foregoing objection, OPG responds as follows. All of the main findings and recommendations from the Asset Management Oversight Committee ("AMOC") and	No change. OPG understands that CME revised its response for OPG to confirm if there are other reports of the Asset Management Oversight and Project Management Oversight Committees that are issued and that are not in the business case summaries. OPG confirms that there are no such reports.

		Project Management Oversight Committee ("PMOC") are already on the record. The main findings and recommendations from the AMOC with respect to specific projects are related to endorsing asset investments with potential start dates for inclusion in OPG's Business Plan. The outcome is filed in Ex. D2-1-3 Table 5a and 5b Capital Project Listing - Nuclear Operations Portfolio Projects (Unallocated) and Ex. F2-3-3 Table 4 OM&A Project Listing – Nuclear Portfolio Projects (Unallocated). The main findings and recommendations from the PMOC with respect to specific projects are related to endorsing Business Case Summaries ("BCS") for authorization to progress through project gates. The BCSs are filed in Ex. D2-1-3 Attachment 1 and Ex. F2-3-3 Attachment 1.	
CME-19 b)	With respect to the D20 Storage Project: (b) Please provide all reports or other documents created by OPG's P&M group with respect to the D20 project.	(b) OPG declines to answer on the basis that this is not an appropriate question. The question ignores the principle of proportionality, which underlies the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question contemplates the production of "all reports or other documents created by OPG's P&M group with respect to the D20 project" without limit. Responding to this request would require the production of thousands of documents.	OPG understands that CME revised its request to seek a list of the milestone reports issued by P&M. OPG will produce periodic reports issued by P&M on the D2O Storage Project.

ED-1	(a) Please provide OPG's actual/forecast GHG pollution (megatonnes or MT) for each year from 2020 to 2040 inclusive. Please provide both totals and a breakdown by category (e.g., fossil fuel generation, company fleet, buildings, etc.). (b) Please provide OPG's actual/forecast GHG offsets (MT) for each year from 2020 to 2040 inclusive. (c) Please provide OPG's actual/forecast expenditures on GHG pollution reduction actions for each year from 2020 to 2040 inclusive. Please provide OPG's actual/forecast annual reductions in GHG pollution as a result of these expenditures. (d) Please provide OPG's actual/forecast expenditures on GHG pollution offsets for each year from 2020 to 2040 inclusive. Please provide OPG's actual/forecast annual GHG offsets (MT) as a result of these expenditures. (e) For each year from 2020 to 2026 inclusive please provide the total cost and annual GHG reductions and offsets (MT) from each of its GHG pollution reduction and offset programs (e.g., tree planting, wetland restoration). (f) Please provide a table with a forecast as far into the future as possible of the GHGs emitted by each of OPG's generation stations.	OPG declines to provide the information requested on the basis of relevance. OPG is not requesting any funding in this application that varies based on Greenhouse gases or offsets. OPG further declines to respond to parts a)-d) and f) because they are improper questions in that they are overbroad. In parts a)-d) the questions cover a twenty year period that starts two years before the period at issue in this proceeding and end fourteen years after. Part e) requests information related to OPG's biodiversity program. This program is not funded through the payment amounts set by the OEB for the facilities prescribed by O. Reg. 53/05. Accordingly, this question is not relevant to this application. Part f) it asks for information "as far into the future as possible."	No change.
ED-3	(b) Please describe the impact of SBG on the HOEP. (c) What percent of the hours in the past 3 years had a $0 or negative HOEP? (d) How does a $0 or negative HOEP impact an unregulated electricity generator? (e) How does a $0 or negative HOEP impact the cost-effectiveness of wind, solar, and storage, respectively? (f) Please describe how demand response could be used to reduce SBG.	a) - h) OPG declines to respond on the basis of relevance. The questions seek system planning information that is not relevant to deciding any issue before the OEB in this application. See Ex. L-F2-01-ED-10 c).	No change.

	(g) Please describe how battery storage could be used to reduce SBG. (h) Please describe how power exchange agreements with Quebec have been used to reduce SBG.		
ED-4	Please provide: (a) Ontario's surplus base-load generation (MWh) forecast to occur in each year from 2021 to 2026 with and without the Pickering life extension; (b) Ontario's curtailed water power generation (MWh) forecast to occur in each year from 2021 to 2026 with and without the Pickering life extension; (c) Ontario's curtailed wind power generation (MWh) forecast to occur in each year from 2021 to 2026 with and without the Pickering life extension; and (d) Ontario's curtailed solar power generation (MWh) forecast to occur in each year from 2021 to 2026 with and without the Pickering life extension.	a)-d) OPG declines to respond on the basis of relevance. The questions seek system planning information that is not relevant to deciding any issue before the OEB in this application. See Ex. L-F2-01-ED-10 c).	No change.
ED-6 e)	(e) Please provide any reports to the OPG Board of Directors regarding potential off-ramps for the Darlington units.	OPG declines to provide the requested information on the basis of relevance. The Province of Ontario through "its most recent Long-Term Energy Plan, and through a specific endorsement to proceed with the refurbishment of Unit 3" (Ex. D2-1-1, p.6), has indicated its continuing support for DRP and has not invoked an off-ramp. As such, an investigation into off-ramps is not within the scope of this proceeding.	Withdrawn.
ED-7 a)	(a) Please provide the Darlington NGS annual production forecast (TWh) for each year from 2027 to 2041 inclusive.	OPG declines to respond to this question on the basis of relevance. The question does not seek information that is relevant as OPG is not seeking approval of its Darlington NGS annual production forecast for the period 2027 to 2041 in this application. Without waiving the foregoing objection, Ex. L-I1-03-Staff-343 provides contextual information regarding OPG's	Withdrawn.

		anticipated Nuclear production from 2027-2036 for rate smoothing purposes.	
ED-9 a) and c)-f)	(a) For each of the past 5 years, please provide a table showing Ontario's 40 highest electricity demand hours, in order, and for each of those hours indicate: (i) whether Pickering was in service; (ii) its output; (iii) if it was not in-service, in whole or in part, whether that was planned or unplanned; and (iv) which units were out-of-service. (c) If Pickering is out-of-service due to an unplanned outage at the time of peak electricity demand in Ontario, how is that deficit in electricity supply made up? (d) If Pickering is out-of-service due to a planned outage at the time of peak electricity demand in Ontario, how is that deficit in electricity supply made up? (e) For the purpose of estimating resource adequacy, what percent of the time is Pickering assumed to be in service? (f) For the purpose of estimating resource adequacy, is Pickering's capacity assumed to be available at 100% or a lesser amount?	a) and c-f) OPG declines to respond on the basis of relevance. The questions seek system planning information that is not relevant to deciding any issue before the OEB in this application. See Ex. L-F2-01-ED-10 c).	No change.

ED-10 c), e) and f)	(c) In EB-2016-0152, OPG filed analysis from the IESO regarding the cost-effectiveness of Pickering Extended Operations. Please file any IESO analysis relating to the life extension proposed in the current application. If no such IESO analysis is available, please explain why. (e) Please provide all assumptions underlying these figures in (c), including the assumed generation for each year and the forecast days out-of-service. Please compare those assumptions in a table to the 5-year after generation amount and days out-of-service. Please provide this for the station as a whole and broken out by unit (which is necessary as some units are being shut down earlier). (f) With respect to (c), please indicate if any costs relating to Pickering or that could be allocated to Pickering have not been included, itemize those, and provide values for each.	c), e) and f) OPG declines to respond this question on the basis of relevance. As the OEB has determined in the past four OPG payment amount applications, generation planning is not within the scope of OPG's payment amounts proceedings. As the OEB concluded in deciding OPG's last payment amounts application: "Consistent with previous proceedings and the OEB's findings on the Environmental Defence motion, the OEB finds that generation planning, including the economics related to generation planning, is not within the scope of this payment amounts proceeding." (EB-2016-0152, Decision with Reasons, December 28, 2017, p. 63 (ft. nts. omitted)). Based on this determination and similar determinations in prior payment amounts applications, it is clear that the IESO analysis is not relevant to any issue within the scope of this proceeding.	No change.
ED-11 a)-c)	(a) Please provide the best estimate of Ontario's incremental peaking requirements (MW), if any, to achieve compliance with the NPCC resource adequacy criterion in each year from 2021 to 2026 inclusive; (b) Please provide the best estimate of Ontario's potential to meet its incremental peaking requirements by electricity imports from neighbouring jurisdictions for each year from 2021 to 2026 inclusive; and (c) Please provide the best estimate of Ontario's potential to meet its incremental peaking requirements by demand response resources for each year from 2021 to 2026 inclusive.	a) - c) OPG declines to respond on the basis of relevance. The questions seek system planning information that is not relevant to deciding any issue before the OEB in this application. See Ex. L-F2-01-ED-10 c).	No change.

ED-13	(b) Please provide all internal OPG analysis showing the prudence and reasonableness of extending the life of Pickering, including any reports to the OPG Board of Directors on the subject and internal cost-benefit analyses. (c) Will the power produced by Pickering in its extended life be less expensive than alternatives? Please explain OPG's answer with detailed calculations and sources. (d) If OPG cannot establish that the price of power from Pickering will be less expensive than alternatives, does it take the position that is should still be able to recoup the full cost of operating Pickering? If yes, why?	b) OPG declines to produce the requested information on the basis of relevance. Part a) to this response presents the information on which OPG's Board of Directors approved the extended shutdown dates for Pickering. Documents memorializing the communications between OPG's Management and its Board of Directors or within the Board of Directors itself provide are not relevant to the determination of any issue before the OEB in this application. As the OEB said in EB-2010-0008 when rejecting a similar request for Board of Directors material: The Board has decided not to order production of the materials sought in the CME and CCC motions. In the Board's view, these materials are not relevant to the determination of the issues before the Board in this proceeding. The Board will make its decision on the application and supporting materials filed by the applicant and the evidence of intervenors, all of which is subject to cross-examination. (EB-2010-0008, Tr. Vol. 1, p. 113) c) OPG declines to respond this question on the basis of relevance. As the OEB has determined in the past four OPG payment amount applications, generation planning is not within the scope of OPG's payment amounts proceedings. As the OEB concluded in deciding OPG's last payment amounts application: "Consistent with previous proceedings and the OEB's findings on the Environmental Defence motion, the OEB finds that generation planning, including the economics related to generation planning, is not within the scope of this payment amounts proceeding." (EB-2016-0152, Decision with Reasons, December 28, 2017, p. 63 (ft. nts. omitted)). d) See response to part c).	No change.
ED-14 a) -t)	**a to t** (a) Does OPG strive to deliver power from each of its generation facilities at a cost that is less than alternative electricity sources? (b) Does OPG believe the OEB is precluded from considering the reasonableness of its payment amounts requests with reference in part to the cost of electricity from alternative electricity sources? (c) In particular, does OPG believe that is	a) OPG declines to respond on the basis of relevance. The questions seek system planning information that is not relevant to deciding any issue before the OEB in this application. See Ex. L-F2-01-Environmental Defence-10 c). b) OPG believes that the OEB's authority to establish payment amounts for OPG's prescribed facilities is established in section 78.1 of the Ontario Energy Board Act, 1998 and the regulations made under that section. OPG further believes that an examination of the OEB's	No change.

	should be paid to invest in the extended operation of Pickering even if the power it produces would be more expensive than alternatives? If yes, please explain why. (d) Does OPG believe the OEB is precluded from considering whether OPG should be paid the entire proposed cost to invest in the extended operation of Pickering even if the power it produces would be more expensive than alternatives? (e) According to Lazard, the cost of offshore wind is 8.6 cents per kWh (US $), which is approximately 11.2 ¢/kWh CAD. Lazard, Lazard's Levelized Cost of Energy Analysis – Version 14.0 (October 2020) page 2. Does OPG have reason to disagree? If yes, please provide OPG's best estimate. (f) Please file a copy of the Lazard report so it can be referred to with an exhibit number in this proceeding. (g) Does OPG believe Lazard is a credible organization? (h) Does OPG believe the Lazard report cited above is credible? (i) According to Lazard, the cost of onshore wind is 2.6 to 5.4 cents per kWh (US $), which is approximately 3.4 to 7 ¢/kWh CAD. Lazard, Lazard's Levelized Cost of Energy Analysis – Version 14.0 (October 2020) page 2. Does OPG have reason to disagree? If yes, please provide OPG's best estimate. (j) According to Lazard, the cost of utility scale solar PV is 2.9 to 4.2 cents per kWh (US $), which is approximately 3.8 to 5.5 ¢/kWh CAD. Lazard, Lazard's Levelized Cost of Energy Analysis – Version 14.0 (October 2020) page 2. Does OPG have reason to disagree? If yes, please provide OPG's best estimate. (k) On June 22, 2017 Hydro Quebec offered to sell Ontario 8 billion kWh per year, for 20	authority to set payment amounts is not a proper focus of this proceeding and therefore declines to answer on the basis of relevance. c) See response to part a). d) See response to part b). e) See response to part a). OPG further notes that the cited document does not form part of its evidence. f) See response to part e). g) See response to part e). h) See response to part e). i) See response to part e). j) See response to part e). k) See response to part a). l) See response to part a). OPG further notes that the cited document does not form part of its evidence. m) See response to part a). OPG further notes that the cited document does not form part of its evidence. n) See response to part a). OPG further notes that the cited document does not form part of its evidence. o) See response to part a). OPG further notes that the cited document does not form part of its evidence. p) See response to part a). OPG further notes that the cited document does not form part of its evidence. q) See response to part b). r) See response to part a). s) See Ex. L-F2-08-AMPCO-159. t) See response to part a).	

	years, at a price of 6.12 cents per kWh. In August 2017 Hydro Quebec lowered its proposed price to 5 cents per kWh. Letter from Steve Demers, Vice President, Hydro Quebec to Peter Gregg, CEO, Independent Electricity System Operator, (June 22, 2017); and Pierre Couture, "Hydro Quebec l'Ontario en ligne de mire", Journal de Montreal, (August 16, 2017). Does OPG have reason to disagree? If yes, please provide OPG's best estimate of the price of firm electricity imports from Quebec. (l) In 2017 the average price of Ontario's spot market electricity purchases from Quebec was 2.2 cents per kWh. Financial Accountability Office of Ontario, Electricity Trade Agreement: An Assessment of the Ontario-Quebec Electricity Trade Agreement, (Spring 2018), page 7. Does OPG have reason to disagree? If yes, please provide OPG's best estimate of the price of spot market purchases from Quebec. (m) If OPG disagrees, please file a copy of the document referred to above so it can be referred to in an interrogatory response. (n) In 2017 the Independent Electricity System Operator's (IESO) average levelized unit energy cost (LUEC) of procuring a kWh of electricity savings was 1.69 cents. Independent Electricity System Operator, 2017 Report on Energy-Efficiency Activities, page 8. Does OPG have reason to disagree? If yes, please provide OPG's best estimate of the cost (LUEC) of electricity conservation. (o) A report prepared for the Government of Ontario identified 64 potential offshore wind power sites in the Great Lakes that could produce 111.5 billion kWh of electricity per year. This is equivalent to 82% of Ontario's total electricity consumption in 2019. Does		

	OPG have reason to disagree? If yes, please provide OPG's best estimate of Ontario's off-shore wind power generation potential. (p) This MIT paper describes how Hydro Quebec's hydro-electric reservoirs can be used as a low-cost storage solution. When our wind power production is above average, our surplus wind energy can be exported to Quebec to keep the lights on in Montreal, and Hydro Quebec can store more water in its reservoirs. Conversely, when our wind power generation is below average, Hydro Quebec can use the extra water in its reservoirs to produce electricity for export back to Ontario. Does OPG have reason to disagree? If yes, please describe the extent to which it is technically feasible for Hydro Quebec's hydro-electric reservoirs to be used as a low-cost storage solution. (q) Does OPG believe the cost of alternative electricity options is relevant to the amount it is paid for its regulated generation facilities? (r) Should OPG be paid for the full cost of its generation facilities even if that cost is higher than alternatives? If yes, why? (s) Should electricity ratepayers pay OPG to develop SMRs even if the expected cost of power from SMRs ($/MWh) is higher than alternatives? (t) Should electricity ratepayers pay OPG to develop SMRs even if the expected cost of power from SMRs ($/MWh) is more than twice as high as alternatives?		

ED-15 all parts except c)	(a) Please provide a table comparing the wording used by the Government of Ontario in relation to the current plan to extend the life of Pickering versus the wording used in relation to the Pickering Extended Operations at issue in EB-2016-0152. (b) Please include Government of Ontario references regarding each project so they can be compared in their context. (d) Does the Ontario Government support the plan to extend Pickering's operations at any cost? (e) Please provide all correspondence with the IESO regarding the current plan to extend the life of Pickering, especially any studies or cost-benefit analyses. (f) Please provide all correspondence with the Government of Ontario regarding the current plan to extend the life of Pickering, especially any studies or cost-benefit analyses.	a) OPG declines to produce the requested information on the basis of relevance. An examination of the precise wording of the Province's support for extending Pickering's operation is of no relevance to any issue before the OEB in this application. b) See part a). d) See Ex. L-F2-01-ED-10 c). e) See Ex. L-F2-01-ED-10 c). f) See part a).	No change.
ED-16 b)-d)	(b) What the IESO's contingency plan in the event that the CNSC does not approve the extended operation of Pickering? Please ask the IESO for this information. (c) Please compare the cost of those contingency plans to the cost of continuing to operate Pickering on a $/MWh basis. (d) Please provide an analysis of the costs and benefits of meeting Ontario's peak day generation requirements for each year from 2024 to 2026 inclusive, if the CNSC does not extend Pickering's operating licence, by: a) curtailing natural gas-fired electricity exports; b) procuring more demand response resources; c) procuring more energy efficiency resources; d) importing renewable energy from neighbouring jurisdictions; and e) procuring more Made-in-Ontario green energy; and f) by the least-cost combination of options (a) to (e) inclusive.	b) - d) See Ex. L-F2-01-ED-10 c).	No change.

ED-17	(a) Please state for each year from 2021 to 2026 inclusive the quantum of this capacity that is provided by: i) the Pickering Nuclear Station; and ii) the Darlington Nuclear Station according to Ontario's Reserve Margin Requirements. (b) Please state the methodology and assumptions, and show the calculations, for estimating Pickering's and Darlington's available capacity (MW) at the time of Ontario's peak annual demand. Please discuss the reasonableness of this in light of their forced outage rates.	a) - b) See Ex. L-F2-01-ED-10 c).	No change.
ED-18 (b), (d), (f), (g), (j) and (k)	(b) Pickering's available capacity (MW) at the time of Ontario's peak annual demand; (d) The avoided generation (MWh), by fuel type, as a result of Pickering's extended operation; (f) The installed capacity (MW) of the replacement peaking generation capacity; (g) The available capacity (MW) of the replacement peaking generation capacity at the time of Ontario's peak annual demand; (j) Ontario's carbon price; and (k) Ontario's incremental peaking requirements (MW) to meet the NPCC resource adequacy criterion if Pickering is not extended.	(b), (d), (f), (g), (j) and (k) See Ex. L-F2-01-ED-10 c).	No change.
ED-19	(a) If the IESO or OPG has analyzed whether the continued operation of Pickering is economic, please provide the assumptions underlying this analysis with respect to the variables: i. Pickering's total installed capacity (MW); ii. Pickering's available capacity (MW) at the time of Ontario's peak annual demand; iii. Pickering's generation (MWh); iv. The avoided generation (MWh), by fuel type, as a result of Pickering's extended operation; v. Pickering's rolling average forced loss	a) See Ex. L-F2-01-ED-10 c).	No change.

	rate; vi. The installed capacity (MW) of the replacement peaking generation capacity; vii. The available capacity (MW) of the replacement peaking generation capacity at the time of Ontario's peak annual demand; viii. Pickering's fuel and operating cost per kWh; ix. Pickering's incremental capital expenditures to permit its extension; x. Ontario's carbon price; xi. Ontario's incremental peaking requirements (MW) to meet the NPCC resource adequacy criterion if Pickering is not extended; and xii. Gas prices.		
ED-20 c), g), h) and i	(c) Please provide correspondence between OPG and the Government of Ontario regarding the further extension of Pickering's life which details the impacts on jobs. (g) Does the OEB's mandate include the creation of jobs? (h) Please compare in person-years FTE the jobs that would exist in relation to Pickering over 2024 to 2026 in the scenario where it was shut down in accordance with the plan in the previous payment amounts application versus a scenario where it is shut down in the current plan. (i) Please provide a table reconciling the jobs figures in the above reference with the evidence in this application regarding the headcount for Pickering's operations.	c) See Ex. L-F2-01-ED--15 a). g)-i) OPG declines to respond on the basis of relevance. The questions seek detailed information on employment figures that are unrelated to the costs OPG is seeking to recover for extending Pickering's operation.	No change.

ED-21	(a) Please provide OPG's forecast/actual annual expenditures, for each year from 2020 to 2030 inclusive with respect to the planning, preparation and building of a SMR at the Darlington site. (b) Please provide the forecast size (MW) and total capital cost of the proposed new SMR at Darlington. (c) Please provide the forecast in-service and end-of-service dates for the proposed new SMR at Darlington (d) Please provide the forecast costs of dismantling and decommissioning the proposed SMR at Darlington. (e) Please provide the forecast start and completion dates for the dismantling and decommissioning of the proposed SMR at Darlington. (f) Please provide OPG's plans, proposed locations and forecast costs for storing the spent nuclear fuel from the proposed Darlington SMR in the: a) short-term; b) medium-term; and c) long-term. (g) Please provide the forecast levelized unit energy cost (LUEC) of the proposed new SMR at Darlington. Please provide a break-out of the LUEC according to the following categories: capital costs, non-fuel operating costs; fuel costs; dismantling and decommissioning costs; and spent nuclear fuel storage costs.	a) See Ex. L-F2-08-SEC-133 and Ex. L-F2-08-AMPCO-159. OPG is not seeking any amounts regarding the SMR project through this Application. b) – g) See Ex. L-F2-08-AMPCO-159.	No change.
ED-22	(a) Please describe OPG's involvement in the steering committee process referred to above. (b) Does OPG have any reason to disagree with the estimate of $16.3 per kWh price of electricity from an SMR discussed above? If yes, please explain why. (c) What does OPG believe is a reasonable range of estimates for the price of electricity from SMRs per kWh after accounting for the possibility of cost overruns?	a) - c) See Ex. L F2-08-AMPCO-159.	No change.

ED-23 b), c), e), and g)	(b) Please provide the total cost of Bruce Power's nuclear generation ($/MWh) for the past 5 years and as far into the future as is available. (c) Please explain the difference between (a) and (b). (e) Please provide a list of all generators owned by OPG and its subsidiaries as part of its unregulated business. (g) If the SMRs were left to the private sector for development and implementation, would that development and implementation occur? If not, why not?	b) OPG does not have this information and does not believe that it is relevant to any issue before the OEB in this application. c) See response to part b). e) Under section 78.1 of the Ontario Energy Board Act, 1998, the OEB sets payment amounts for certain of OPG's generating facilities as prescribed by regulation. OPG's unregulated facilities are not subject to this regulation, as such, this question is not relevant to this application. g) OPG does not have this information, and it is not relevant to this application. For the purposes of this rate setting application OPG is seeking approval of annual OM&A costs of $2.2M, $2.2M, $2.3M, $2.3M, and $2.3M for the years 2022-2026, respectively, as presented in Ex. F2-1-1, Table 1. The forecast OM&A costs during the IR term are for work to preserve the option to build new nuclear at Darlington, and are not predicated on the development of an SMR.	No change.
ED-24 a)-e) and g)-h)	(a) Where will the nuclear waste from new reactors be stored in the long-term? (b) How will the nuclear waste be transported to that long-term storage site? (c) Please provide a map showing the potential long-term storage sites and the transportation routes between them and the proposed site for potential new nuclear generation. (d) Does OPG feel it is safe to transport nuclear waste on Ontario's highways? If yes, please explain why. (e) Does OPG feel it is safe to transport nuclear waste on Ontario's highways indefinitely? (g) Does having a single site for long-term storage still make sense if nuclear power will be produced indefinitely and will therefore need to be transported to that site	a) - e) OPG declines to produce the requested information on the basis of relevance. OPG is not seeking recovery of any funding for SMR development in this application, as set out in Ex. L-F2-08-AMPCO-159. Further, an examination of the nuclear waste disposal questions posed would not be relevant to any issue in this application. g)-h) See part a)	No change.

	indefinitely. (h) Does OPG believe that the storage of long-term nuclear waste is irrelevant to the prudence of building new nuclear reactors?		
EP-1 b)	b) Please discuss trends and actions to be taken to improve performance in the 2021-2026 outlook period.	OPG declines to respond on the basis of relevance. O.Reg. 53/05 section 6(2), 13, i, establishes the Hydroelectric payment amounts for the period covered by this application at the level that exists on December 31, 2021. As such, the information sought is not relevant to any issue before the OEB in this application.	Withdrawn.
EP-35 d)	d) Please explain the reasons for each of "the higher than planned project spend on the Third Emergency Power Generator (+$35.0M), Containment Filtered Venting System (CFVS) modifications (+$29.4M) and Shield Tank Overpressure Protection (STOP) (+$21.3M)."	d) OPG declines to produce the requested information on the basis of relevance. The listed projects are included in the CRVA amounts related to DRP that OPG is not seeking to clear in this application. As such, the information requested in not relevant to any issue in this application.	Withdrawn.
EP-66 d) and e)	d) If costs continue to increase, why should not the Lease Amount be increased to a breakeven proposition? e) Provide all relevant factors resulting in the Lease losses: legislative, lease terms, and other factors driving the loss and preventing an increase in the Lease amount.	d) - e) OPG declines to provide the requested information on the basis of relevance. Further details of the Bruce Lease Agreement are not relevant to the issues in this application for reasons set out in the OEB's decision in EB-2007-0905 (Decision with Reasons, pp. 99-106) where the OEB held, among other things, that the Bruce Lease is an unregulated commercial contract and that "[t]he Board has no authority to set or review the terms of the lease between OPG and Bruce Power." (p. 99).	Withdrawn.

OAPPA-2	a) Other than the DRP, which is well documented, would OPG please provide a monthly forecast of the anticipated nuclear outages by station and generating unit, during the IR term? b) Alternatively, or additionally, can OPG identify the Planned Outage start and end dates, by individual unit, during the IR term?	In Attachment 1, OPG has provided the outage breakdown by year, station outage name, unit, description, and outage duration (in days), for all nuclear outages in the 2022-2026 period. OPG declines to produce a monthly forecast or the start and end dates requested on the basis of relevance. This information is not relevant to the review of OPG's production forecast. OPG further notes this information is commercially sensitive.	Withdrawn.
OSEA-1, parts 8, 10 and 11	8) Has OPG undertaken an analysis comparing the system-wide benefits to ratepayers of using PGS uneconomically (i.e. time-shifting at a loss) compared to SBG cost recovery? For example, would it be better value for ratepayers to make OPG financially whole on uneconomic time-shifting compared to the full regulated rate earned through SBG volumes? 10) Please provide spill volumes as a percentage of total output for OPG's contracted versus regulated hydroelectric assets. 11) Is OPG made financially whole to the same extent for SBG at its contracted hydroelectric facilities compared to its rate-regulated facilities?	8. OPG declines to provide a response on the basis of relevance. In asking about whether OPG has conducted an analysis of "system-wide benefits," the question seeks system planning information that is not relevant to deciding any issue before the OEB in this application. 10. OPG declines to respond on the basis of relevance. Under section 78.1 of the Ontario Energy Board Act, 1998, the OEB sets payment amounts for certain of OPG's generating facilities as prescribed by regulation. OPG's unregulated facilities are not subject to this regulation, as such, this question is not relevant to this application. 11. See part 10.	For part 8, OPG confirms that it has not completed such an analysis. OPG will revise the interrogatory response to reflect this. For parts 10 and 11, no change.
OSEA-9, part 2	2 Please provide a summary of external funding committed to or received for SMRs (e.g., provincial or federal grants, loans, etc.).	b) 1. Please see L-F2-8-AMPCO-159	Withdrawn.
SEC-8	Please describe the nature of the "higher fuel costs" attributable to hydroelectric generation, and the amount of that increase in 2019.	See Ex. L-A1-03-EP 1 b).	No change.

SEC-10	Please provide a copy of all benchmarking analyses, reports, opinions and/or assessments, undertaken by, for, or that includes OPG, since 2017, regarding any aspect that directly or indirectly relates to a material aspect of its regulated business that is not already included in this application.	OPG declines to answer this question. The question does not recognize proportionality considerations which underlie the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question contemplates the production of every benchmarking analysis, every report and every opinion and/or assessment "undertaken by, for, or that includes OPG, since 2017, regarding any aspect that directly or indirectly relates to a material aspect of its regulated business that is not already included in this application." OPG's business requires an extensive quantity of documents that may be captured by the question asked in this interrogatory. OPG notes that its application contains extensive benchmarking evidence and in the course of responding to interrogatories on specific matters, it has provided additional benchmarking reports.	SEC revised its request. OPG's understanding is as follows: On a best efforts basis, provide third party benchmarking reports on material aspects of OPG's application since 2017. OPG is reviewing this request and will update or revise its interrogatory response as applicable.
SEC-11	Please provide summaries of all internal audit reports conducted since 2017, related to any aspect that directly or indirectly relates to OPG's regulated business, their findings, recommendations, and the status of any actions that are to be taken.	OPG declines to answer this question on the basis that this is not an appropriate question. The question does not recognize proportionality considerations which underlie the interrogatory process, in that it is overly broad and all encompassing. Contrary to the OEB Rules of Practice and Procedure (Section 26.02 (d)), the question does not "contain specific requests for clarification of a party's evidence, documents or other information in the possession of the party and relevant to the proceeding." The question asks OPG to review all audits for a four-year period and summarize the findings, recommendations and status. OPG's business generates a large quantity of documents that may be captured by the question asked in this interrogatory. Without waiving this objection, Attachment 1 (confidential)	CME agreed that fulfilling SEC-11 will equally fulfill CME-001, with the exception of adding Q4 2016 audits to the list of audits provided in SEC-11. OPG agrees with this revised request and will include Q4 2016 audits in the revised response to SEC-011. SEC has provided a list of the audits that SEC and CME are interested in, and also indicated an interest in all yellow and red audits.

		to this response provides a listing of all audits undertaken in the last four years except those related exclusively to OPG's unregulated business. If the information requested was refined to reference specific materials relevant to the proceeding, OPG could undertake to produce the relevant materials. For example, OPG has provided responsive material on audits of the Darlington Refurbishment Program in Ex. L-D2-02-Staff-105 and Ex. L-D2-02-AMPCO 135.	OPG agrees with this refined request and will provide summaries of all such audits in an update to the interrogatory response.
SEC-46	Please confirm that the actual cost of interest on long term debt applicable to the regulated hydroelectric facilities for the period 2022-2026 is forecast to be approximately $130 million lower than the interest cost embedded in rates for that period.	OPG declines to respond on the basis of relevance. O.Reg. 53/05 section 6(2), 13, i, establishes the Hydroelectric payment amounts for the period covered by this application at the level that exists on December 31, 2021. As such, the information sought is not relevant to any issue before the OEB in this application.	No change.
SEC-71	Please provide a copy of the information provided to the OPG Board of Directors in which the approval of the deferment of Unit 3 to September 2020 was approved.	OPG declines to produce the requested information on the basis of relevance. The materials presented to OPG's Board of Directors related to the deferral of Unit 3 are not relevant to the determination of any issue before the OEB in this application. The decision to defer Unit 3 occurred over a year ago and is reflected in the Board of Director's approval of the Unit 3 execution estimate that is provided at Ex. D2-02-07, Attachment 1. As the OEB said in EB-2010-0008 when rejecting a request for Board of Directors material: The Board has decided not to order production of the materials sought in the CME and CCC motions. In the Board's view, these materials are not relevant to the determination of the issues before the Board in this proceeding. The Board will make its decision on the application and supporting materials filed by the applicant and the evidence of intervenors, all of which is subject to cross-examination." (EB-2010-0008, Tr. Vol. 1, p. 113)	OPG agreed that it would provide the requested document. OPG will file a revised response to the interrogatory.

SEC-86	c. Please provide a copy of any briefing materials provided to the OPG Board of Directors regarding the Report.	a) OPG declines to produce the requested information on the basis of relevance. The materials presented to OPG's Board of Directors regarding the Auditor General's Report are not relevant to the determination of any issue before the OEB in this application. With respect to DRP, OPG's application is based on its extensive evidence and supporting documentation. Among which are the business cases for the project. In addition, as the OEB said in EB-2010-0008 when rejecting a request for Board of Directors material: "The Board has decided not to order production of the materials sought in the CME and CCC motions. In the Board's view, these materials are not relevant to the determination of the issues before the Board in this proceeding. The Board will make its decision on the application and supporting materials filed by the applicant and the evidence of intervenors, all of which is subject to cross-examination." (EB-2010-0008, Tr. Vol. 1, p. 113).	OPG will update the interrogatory response to clarify there are no such materials.

SEC-90	Please provide a copy of all materials provided to the OPG Board of Directors relating to the D20 Storage Project.	OPG declines to produce the requested information on the basis of relevance. The materials presented to OPG's Board of Directors are not relevant to the determination of any issue before the OEB in this application. With respect to the D2O Storage Project, OPG's application is based on its extensive evidence and supporting documentation. As the OEB said in EB-2010-0008 when rejecting a request for Board of Directors material: The Board has decided not to order production of the materials sought in the CME and CCC motions. In the Board's view, these materials are not relevant to the determination of the issues before the Board in this proceeding. The Board will make its decision on the application and supporting materials filed by the applicant and the evidence of intervenors, all of which is subject to cross-examination. (EB-2010-0008, Tr. Vol. 1, p. 113) OPG also declines to provide the requested material on the basis that the request is overbroad in that it would require OPG to search more than ten years' worth of Board of Director material for any mention of the D2O Storage Project. OPG notes that relevant material responsive to this request is provided in Ex. L-D2-01-Staff-105, Attachments 2 and 3 and Ex. L-D2-02-SEC-084, Attachment 2. Additional Burns/Modus reports regarding the D2O Storage Project that were provided to OPG's Board of Directors were produced as part of OPG's evidence in EB-2016-0152. Please see EB-2016-0152, Ex. L-04.3-1-Staff-072, Attachments 1 to 11, 15, and 19.	OPG understands that SEC revised its interrogatory request to seek meaningful updates to the project or major touchpoints that went to the Board of Directors. OPG will, on a best efforts basis, review this request and revise its response to the interrogatory question accordingly.
SEC 104	OPG's evidence is that in 2017 it considered three alternatives for completing the project and that it ultimately chose the option of having CanAtom complete the project. Please provide any contemporaneous documents that were provided to decision-makers that outline the various options and any that recommended the course of action to have CanAtom complete the project.	Please see Attachment 1, for a copy of the document provided to decision-makers that outlines the various alternatives for completing the project. OPG has identified one other contemporaneous document that includes details of the recommended course of action. OPG refuses to produce this document on the basis of solicitor-client privilege.	Withdrawn.

SEC 107 b)	OPG's evidence is that by April 2018 CanAtom's performance was raising concerns about its ability to deliver the project on schedule: b. Please provide a copy of any contemporaneous document that outlines OPG's concerns at the time.	b) OPG has identified one contemporaneous document that outlines OPG's concerns at the time. OPG refuses to produce this document on the basis of solicitor-client privilege.	Withdrawn.
SEC-111 e) partial	e. When the Project is completed, what is the forecast annual revenue requirement (allocated to both regulated nuclear and hydroelectric), including both capital and OM&A portions?	With regard to the forecast annual revenue requirement for the hydroelectric business, OPG declines to respond on the basis of relevance. O.Reg. 53/05 section 6(2), 13, i, establishes the Hydroelectric payment amounts for the period covered by this application at the level that exists on December 31, 2021. As such, the information sought is not relevant to any issue before the OEB in this application.	Withdrawn.
SEC-154	[H1-1-1, p.18] Please provide a table comparing the forecast $2 billion in hydroelectric capital additions annually to the proposed $153 million annual reference amount, and provide a forecast of the balance in the Hydroelectric CRVA as of December 31, 2026.	OPG declines to provide the requested information on the basis of relevance. OPG is not seeking to recover actual or forecast hydroelectric balances in the CRVA in the application (see Ex. H1-1-1, p. 18).	No change.
Society-7	j. What is the basis of the estimated expected sales revenues? k. What will OPG do with the money it receives from the sale of that site? l. What are the estimated environmental remediation costs for Kipling before it can be sold? Would these costs exceed the sale price of Kipling or as a minimum offset a material amount of the expected sale revenues? Have these expected costs been reflected in the cost/ benefit analysis for Clarington? If not, why not?	OPG declines to answer on the basis of relevance. Any proceeds or costs associated with a sale of the Kipling campus property do not impact approvals sought in this application. Like OPG's head office sold in 2017, the Kipling campus property is not a prescribed facility and has never been included in OPG's rate base. As the OEB stated in EB-2016-0152 (Decision on Issues List Prioritization, December 21, 2016, p. 2), "The OEB also notes that OPG's head office is not a regulated asset."	Added, but no change. This refusal was missed as part of OPG's original submissions. OPG made the Society of United Professionals aware prior to the refusals discussion meeting.